

S-178/60

(NY-4829)

Behavior of Thixotropic Colloids Under Pressure
Congealing of Ferric Hydroxide, by O. I.
Leyfanskiy, P. E. Frank, 6 pp.

RUSSIAN, per Zhur. Fiz. Khim., Vol XV, No 4, 1941,
pp 504-506.

JPRS 5736

Sci - Chem

Oct 60

128,418

The Solubility of Solid Methane in Liquid
Nitrogen and Oxygen, by V. G. Pastovskiy,
Yu. A. Krestinskiy, 13 pp.

RUSSIAN, Dokl. Akad. Nauk, Vol XV,
1941, pp 525-531.

SLA 60-238516

Sci
Vol. IV, No. 7
Apr 62

192,660

Influence of Temperature on the Detonation Limits
of Hydrogen-Air Mixtures, by M. A. Rivin.
UNCLASSIFIED

RUSSIAN, per, Zhur Fiz Khim, Vol. XV, No 4, 1941,
pp 533-550.

ATIC F-TS-8313

Scientific - Physics
ATI 83148

13,499

Electron Diffraction Study of the Structure of
Cadmium Iodide, by Z. G. Pumskei, 34 pp.
RUSSIAN, per, Zh Fiz Khim, Vol 15, No 5, 1941,
pp 559-576.
AEC/ANL-Tr-794-70

Sci/Phy
Mar 70

400,187

Zhur Fiz Khim Vol 15, ~~page 592-6~~ page 592-6 (1941)

The absorption spectra of vapors of compounds
formed by uranium and chlorine.
by Yu. M. Tolmachev.

AEC Trans (avail. Brookhaven)

Kravchenko, V. M.
THERMODYNAMIC CALCULATION OF QUATERNARY SYSTEMS: SYSTEM ORTHOXYLENE-METAXYLENE-PARAXYLENE-ETHYLBENZENE
[1962] 8p. 21 refs.
Order from OTS or SLA \$1.10

62-14614

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1941,
v. 15, p. 652-658

DESCRIPTORS: *Xylenes, *Benzenes, *Ethyl radicals,
*Thermodynamics, Thermochemistry, Solubility,
*Eutectics, Crystallization, Phase studies, Chemical
equilibrium.

The method previously suggested for solving several
equations for isobars of solubility to determine the
coordinates of eutectic points in ternary systems was
extended to quaternary systems and as an example a
diagram of the quaternary system orthoxylene-meta-
xylene-paraxylene-ethylbenzene was calculated and
(Chemistry--Physical, TT, v. 8, no. 6) (over)

62-14614

I. Kravchenko, V. M.
II. Title: System...

Office of Technical Services

Theory of Preparation of Catalysts. The Role
of the Free Energy of the Processes of Preparation,
by S. Z. Roginskiy, 27 p.

RUSSIAN, in Zhur Fiz Khim, Vol XV, 1941, pp
708 730

SLA R-2941

Sci

Jul 59

92, 426

S-178/60

(NY-4829)

Thermal Decomposition and Oxidation of Sulfur
Monoxide, by Ye. Kondrat'yeva, V. Kondrat'yev,
17 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XV, No 6, 1941,
pp 731-738.

JPRS 5737

Sci - Chem
Oct 60

128,458

Polarization During Ion Redox Processes
Rechargings, Ions of Iron, Thallium,
Cerium, And Vanadium, by L. Antropov,
I. Mingireva.
RUSSIAN, per, Zhur Fiz Khim, Vol XV,
1941, pp 776-792. 9230478
AEC-Tr-6572

Sci-Phys
Dec 65

203,340

Vibration Spectra of Hydrocarbon Molecules.
I. Relation Between Vibration Form and Symmetry of
Molecules, by M. A. El'yashevich, 19 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XV, No 7-8, 1941,
pp 831-846,

Sci Tr Center RT-1140

Scientific - Physics

Jul 54 CTS

16,062

Vibration Spectra of Hydrocarbon Molecules. VII. A
Simplified Method of Setting up Equations for the Deter-
mination of Vibration Frequencies of Polyatomic Molecules,
by M. A. Il'yashevich, 23 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XV, No 7-8, 1941,
pp 847-861.

Sci Tr Center RT-1141

Scientific - Physics

16,063

Jul 54 CTS

Vibration Spectra of Hydrocarbon Molecules. VIII.
Calculation of Constants of the Potential Energy
According to the Vibration Frequencies of Methane and
Ethane, by B. I. Stepanov, 21 pp.

Russkaya Fiz. Khim. Vol. 20, no 7-8, 1941,
pp 865-881.

Sci Tr Center RT-1221

Scientific - Physics

Jul 54 CTC 16,059

Chemical Bond in Solid Compounds I, by A. K.
Berger, 9 pp.

RUSSIAN, per, Zhur Fiz i Khim, Vol XV, 1941, pp.
927-933

SLA R-2967

Sci

Jul 59

92,398

The Nature of Photochemical and Additive
Coloring of Fluorite, by L. M. Shatkovskiy,
32 pp.

RUSSIAN, Zhur Est Fiz Khim, Vol XV, No 7-8,
1941, pp 934-941.

Sci Tr Center
RT-1443

Scientific - Chemistry

18,878

Diffraction of Rapid Electrons in Thin Films
of Cellulose Esters, by V. A. Kargin, D. I.
Leipumskaya.
RUSSIAN, per, Zh. Fiz. Khim., Vol 15, No 9, 1941,
pp 1011-1021.
NLL 5828.4F (11868)

Sci - Chem
Sept. 67

340,146

Process of Solution and Swelling of Cellulose
Esters. II., by A. Tager, V. A. Kargin.
RUSSIAN, per, Zh. Fiz. Khim., Vol 15, No 9,
1941, pp 1036-1054.
NLL 5828.4F (11854)

Sci - Chem
Sept. 67

340,356

KAPUSTINSKII, A. F.
R-2974. Thermodynamics of the hydration of
electrolytes. Zhur. Fiz. Khim., 15, p.1055-56,
1941. (2p.)

The Effect of Pressure on the Heat of the
Formation of Ammonia, by Y. S. Kazarnovskiy,
and Y. S. Karapetyants, 8 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XV, No 7-8,
1941, pp 966-973.

4

ATC 13-117
Asso Tech [#] 80J15R

Sci

Jul 58

SLA R-296

69, 786

Limited ~~in~~ Joint Solubility of Gases at High
Pressures, by I. R. Krichevskiy, D. B. Tsiklis, 2 pp.

RUSSIAN, ~~per~~, Zhur Fiz Khim, Vol XV, No 9, 1941,
p. 1059.

SLA R-2973

Sci

Jul 59

92,410

Condensation of Supersaturated Vapor, by N. M.
Tunitskiy, 13 pp.

RUSSIAN, in, Zhur Fiz Khim, Vol XV, 1941, pp
1061-1071.

SLA R-2972

Sci

Jul 59

92,440

Shorygin, P. P.
QUANTITATIVE MOLECULAR SPECTRAL ANALYSIS.
[1961] 7p. 0 refs.

Order from OTS or SLA \$1.10

61-16694

L. Shorygin, P. P.

Condensed trans. of Zhurnal Fizicheskoi Khimii (USSR)
1941, v. 15, no. 10, [p. 1072-1081].

DESCRIPTORS: *Quantitative analysis. *Raman
spectroscopy. Theory. Toluene, Methyl radicals,
Cyclohexane, Hydrocarbons.

The range of applicability of quantitative analysis by
the Raman spectra method and factors affecting the
width and intensity of Raman lines are discussed. Data
are given on the distribution of intensities in the
spectra of toluene and methylcyclohexane and examples
cited of analysis of complex mixtures of hydrocarbons.
The available data point to a method of quantitative
analysis of individual hydrocarbons in light motor fuels.
(Author)

(Chemistry--Analytical, TT, v. 6, no. 7)

Office of Technical Services

Highly Purified Aluminum Silicate Soils, by M. E.
Shishinshvili, V. A. Kargin, 8 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XV, 1941, pp
1121-1128.

SLA R 2954

Sci

Jul 59

92,433

Electrochemical Determination of Thermodynamical
Constants of Oxides of Some Metals, by I. A.

Mokolkin 2 p

RUSSIAN, per, Zhur Fiz Khim, Vol XVII, 1942, pp 13-17.

SLA R-2925

Sci

Jul 59

91,403

Determination of Thermodynamic Constants
of Sulfides of Mercury and Silver from
Electromotive-Force Measurements, by I. A.
Makolkin, 7 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVI, 1942.
pp 18-22.

SLA R-2242

Sci

Aug 58

72,059

The Mechanism of Action of Collectors in Flotation,
XXXXI, By M. E. Lipets, 16 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVI, 1962, pp 59-
71.

SLA/R-2626

Sci
Apr 59

84, 881

Votinov, A., Kobeko, P., and Marei, F.
RESEARCH ON POLYMERS. VII. DEPOLYMERIZA-
TION OF LINEAR POLYMERS. [1962] 3p.
Order from OTS or SLA \$1.10 62-14640

[Condensed] Trans. of Zhurnal Fizicheskoi Khimii
(USSR) 1962, v. 36, no. 3/4, p. 106-114.

DESCRIPTORS: *Polymers, Decomposition, *Styrenes,
Methyl radicals, *Acrylic resins, Reaction kinetics.

(Materials--Plastics, TT, v. 8, no. 7)

62-14640

I. Votinov, A.
II. Kobeko, P.
III. Marei, F.
IV. Title: Depolymerization ...

Office of Technical Services

Fastovskii, V. I. and Krestinskii, Yu. A.
SOLUBILITY OF ARGON ON LIQUID OXYGEN.

[1962] 3p. 4 refs.

Order from DTIC or S.A. \$1.10

62-14638

Trans. of Zhurnal Fizicheskoi Khimii (USSR)
1942, v. 16, no. 3/4, p. 148-151.

DESCRIPTORS: "Argon, Solubility, "Liquefied
gases, Oxygen.

The solubility of solid argon in liquid oxygen was investigated isothermally at 72.8-79.09°K, and a considerable deviation of the experimental data from ideal solubility established. An empirical equation was derived permitting calculation of the solubility of argon in liquid oxygen. (Author)

(Chemical Abstracts, 1962, 56, 10, 100, 100)

62-14638

I. Fastovskii, V. I.
II. Krestinskii, Yu. A.

Physico-Chemical Investigations of Solutions in
Liquefied Gases. 29. The Catalytic Activity of
Nitro-Indicators in Liquid Ammonia. Salt Effect in
the Ammonolysis Reaction of Pilocarpine, by E. A.
Iurailovich, A. I. Shatenshtein, 19 pp.

RUSSIAN, no per, Zhur Fiz Khim, Vol XVII, No 1, 1943,
pp 24-31.

Sci Tr Ctr RT-3486

Scientific - Chemistry

34,865

May 56 CTS/dex

Kinetics of Catalytic Oxidation of Acetylene on
Active Manganese Dioxide, by V. Roiter, M. Rusov,
17 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII, No 2, 1943,
pp 87-96.

Sci Tr Center RT-1209

SLA 61-16453

Scientific - Chemistry

Jul 54 CTS

16, 045

R-478-N

Photo Chemical Nitration of Benzene and of
Nitrobenzene by Means of Oxides of Nitrogen, by
I. O. Gorislavets,

RUSSIAN, per, Zhur Fiz Khim, Vol XVII, 1943,
pp 102-107.

*JPRS for AEC

Sci - Phys
16 Feb 61

High - Pressure Apparatus, by I. R.
Krichevskiy and D. S. Tsiklis, 14 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII,
1943, pp 115-125.

SIA R-2288

Sci

Aug 58

72,191

Diffusion Phenomena at the Limits of Propagation of
Flame: Experimental Investigation of the Inhibition
of Explosive Mixtures of Carbon Monoxide, by N. P.
Drozdov, Ya. B. Zel'dovich, 1944.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII(3), Moscow,
1943, pp 134-144.
OT-77-63-20561
Cornel Aeronautical Laboratories
Inc., USA

Tr No OT/388

Scientific - Chemistry, diffusion, flame, explosive,
mixtures, carbon monoxide
DTA 63-16812

Index Aeronauticus

SLA RT-973

Vibration Spectra of Hydrocarbon Molecules. IX.
Calculation of Frequencies of Propane and Butane,
by M. A. Klyashevich, B. I. Stepanov, 13 pp.

RUSSIAN, per. Zhur Fiz Khim, Vol XVII, No 3, 1943,
pp 145-158.

Sci Trans Center RT-412

scientific - Physics
CTS/DEX

10,897

Thermodynamic Properties of Compressed
Ammonia, by Y. S. Kazarnoskiy and M. K.
p/ Karapetants, 19 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII,
1943, pp 172-186.

SLA R-2282

Sci

Aug 58

72,183

Solubility of Liquids in Compressed Gases. I.
Solubility of Benzene in Compressed Nitrogen,
by I. R. Krichevskiy and D. Gamburg, 13 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII, 1943, pp
215-225.

SLA R-2281

Sci

Aug 58

72,190

13 212

Ca-1

DAIN B. Ya., KUTSAYA B. F., LIBERZON E. A.
Reactions in the electron affinity spectra of divalent chromium
and iron ions

Zhur. Fiz. Khim., 17, No. 4, 226-235 (1943)

TT 138 - English

Euratom

*Sci Tr Ctr**TT 138*

Measurement of the Specific Volume of
Melts in the System $B_2O_3-SiO_2$, by A. A.
Leont'eva, 6 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII, 1943,
pp 264-268.

SIA R-2174

Sci

Aug 58

72,056

The Equation of State of Krichevskiy and
Kazarnovskiy, by M. Temkin, 2 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII,
1943, pp 269-270.

SLA R-2186

Sci

Aug 58

72,213

The Capacity of a Mercury Electrode in the
Presence of Polyvalent Cations, by M. Vorsina
and A. Frumkin, 18 pp.

RUSSIAN, per, Zhur Fiz Chem, Vol. XVII, 1943,
pp 295-310.

SIA R-2283

Sci

Aug 58

72,025

the
The Free Energy of Diffusion Double Layer, by
A. Frumkin, 4 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII, No 5/6,
pp 300-312. 1943

SLA R-2269

Sci

Aug 58

72,162

Surface Tension of Solutions, by A. Zhurkhovitskiy,
5 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII, No 5/6, 1943,
pp 1 / 313-317.

SLA R-2295

Sci

Aug 58

72, 220

John F. Kline,

Vol 17, #5/6, pp 347-80 (1943)

Band Energies of Organic Compounds
by K. L. L. Kline

HEC Tr. 810

Book 1000

Kinetics of Real Chemical Processes, by
V. M. Breitman, 10 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVIII,
1943, pp 356-363.

SLA R-2429

Sci

Aug 58

72,158

Natanson, G. L. and Kagan, M. Ya.
CATALYTIC ALKYLATION OF HYDROCARBONS IN
THE GASEOUS PHASE. [1961] 11p. 26 refs.
Order from OTS or SLA \$1.60 61-16918

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1943.
v. 17, p. 381-390.

DESCRIPTORS: *Hydrocarbons. Gases, *Catalysis,
Aluminum compounds, Silicates, Decomposition,
Alkyl radicals, Benzenes, Ethylenes, Propenes,
Toluene, Reaction kinetics

It was established that aromatic hydrocarbons can be
alkylated and aliphatic aromatics dealkylated in the
gaseous phase over aluminosilicate catalysts. Mo-
bility of the alkyl groups is brought about by these
catalysts which makes double decomposition of the
hydrocarbons possible. Considerations are presented
pertaining to the possible mechanism of catalytic con-
densation of hydrocarbons. (Author)

61-16918

I. Natanson, G. L.
II. Kagan, M. Ya.

105405

(Chemical--Physical, TT,
v. 6, no. 9)

Office of Technical Services

Medvedev, S., Koritskaya, O., and Alekseeva, E.
FREE RADICALS IN POLYMERIZATION PROCESSES.
[1961] 18 p. 10 refs.
Order from GTS or SLA \$1.60

61-16902

61-16902

I. Medvedev, S.
II. Koritskaya, O.
III. Alekseeva, E.

Trans. of Journal Fizicheskoi Khimii (USSR) 1963,
v. 37, p. 391-407.

DESCRIPTORS: *Polymerization. *Free radicals.
Reaction kinetics. *Chloroprenes.

In "liquid phase" polymerization of chloroprene under
action of benzoyl peroxide or tetratin hydroperoxide
free radicals can be detected by (1) liberation of iodine
from hydrogen iodide and (2) addition of iodine. The
second method gives satisfactory quantitative results.
An increase of the amount of free radicals in the
process of polymerization of chloroprene occurs (1) as
a result of increasing viscosity of the medium, hinder-
ing interaction of radicals (chain rupture) and (2) be-
cause of the branching of polymerization chains. The
(Chemistry-Physical, TT, v. 6, no. 7) (over)

Office of Technical Services

On the Theory of Aerosol Filtration, by N. N. Tunisky,
I. V. Patriyanov, 8 pp

UNCLASSIFIED

RUSSIAN, per, Zhur Fiz Khim, SSSR, Vol XVII, No 5/6,
1943, pp 408-413,

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SLA R-2096
CIA 289 2305106

Scientific - Chemistry

10,993

Volatility of Gaseous Mixtures, by M.
Terkin, 12 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII,
1943, pp 414-423.

SLA R-2297

Sci

Aug 58

72,214

Bibliography of the Studies of the
Karpov Physical-Chemical Institute for
the Period 1934 to 1943, by K. S.
Bagdasaryan, 88 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVII,
1943, pp 424-445.

SLA R-2268

Sci

Aug 58

72,156

Boreskov, G. K. and Sokolova, T. I.
DE KINETICA VAN DE KATALYTISCHE OXYDATIE
VAN ZWAVELDIOXYDE OP IJZEROXYDE (Kinetics
of contact oxidation of sulfur dioxide in the presence
of ferric oxide). 25 p. 19 refs. MTWL: 690. (Text
in Dutch).
Order from CTS or ETC \$2.-

61-17375

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1944,
v. 18, p. 87-101.

DESCRIPTORS: *Oxidation, Catalysis. *Sulfur com-
pounds. *Dioxides. Iron compounds, Oxides.

61-17375

- I. Boreskov, G. K.
- II. Sokolova, T. I.
- III. MTWL-690
- IV. Stichting Moeilijk
Toegankelijke Wetenschap-
pelijke Literatuur

Office of Technical Services

Mechanism of Oxidation of Sulfur Monoxide, by
E. Kondrat'eva, V. Kondrat'ev.

RUSSIAN, no per, Zhur Fiz Khim, Vol XVIII, No 3/4,
1944, pp 102-109. 927/233

Assoc Tech Sv RJ-211
\$12.75

Scientific - Chemistry
CTB 73/Oct 1955

27,478

173/60

(SP-1045)

Combustion of Carbon Monoxide-Oxygen Mixtures in
Quartz Vessels, by V. N. Kondrat'yev, 9 pp.

RUSSIAN, Izv. Akad. Nauk SSSR, Ser. Fiz. Khim., Vol XVIII, No 3/4,
1944, pp 110-114.

JPRS 4017

Sci - Chem

Sep 60

126, 185

Thermodynamic Properties of N at Pressures from 1000 to 6000 Atmospheres, by P. E. Bol'shakov, 11 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVIII, 1944, pp 121-130.

SIA R-2432

Sci

Aug 58

72,048

Dielectric Permittivity and Dipole Moments of
Some Organic Substances, by V. Ya. Kravil'nikov,
22 p.

RUSSIAN, per, Zhur Fiz Khim, 1944, Vol XVIII,
No 3, pp 174-182.

NRCC TF-794

Sci
Feb 50
Vol 2, No 9

Not Referred to 774
107,052

True Solutions, by I. R. Krichevskiy, 9 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVIII, 1944,
pp 187-193.

SLA R-2433

Sc1

AUG 58

72,189

Vapor Pressure of Solid Acetylene, by P. Z.
Burbo.

RUSSIAN, per, Zhur Pis Khim, Vol XVIII, No 5-6,
1944, pp 253-257.

Assoc Tech Serv RJ-1451
" " " 33K25R

Sci - Chem

Apr 59

85,324

Talkin, D. S.
EXTRAPOLATION OF DATA CLOSE TO THE
CRITICAL REGION. [1961] 2p. 5 refs.
Order from OTS or SLA \$1.10 61-20130

Travaux de Zhurnal Khimicheskoi Khimii (USSR) 1944,
v. 13, pp. 258-272.

DISCRIPTORS: *Methane; *Ammonia; Solubility;
Pressure; Temperature; Chemical equilibria; Gases;
Vapors.

A discussion of the mutual solubility of methane and
ammonia under pressures up to 800 kg/tq. cm. and
temperatures of 25° to 50° C. indicates the necessity
of special precautions in extrapolating data close to
the critical point. (Author)

(Chemistry--Physical, TT, v. 6, no. 12)

61-20130

I. Talkin, D. S.

18705

Office of Technical Services

Overvoltage at a Mercury Cathode in Concentrated Solutions, by Z. A. Iofa and A. N. Frankin,
RUSSIAN, per, Zhurnal Fizicheskoi Khimii,
Vol XVIII, No 7-8, 1944, pp 268-282.
NLE RES 3085
(On Loan or Purchase)

Sci-Tech
Apr 57

524,446

Danilova, V. I.
PHOTOCHEMICAL DECOMPOSITION OF ACETONE
AND BENZENE ADSORBED ON ACTIVATED CARBON
AND ACTIVE NICKEL. [1961] 7p. 8 refs.
Order from OTS or SLA \$1.10 61-18195

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1944,
v. 18, p. 315-320.

DESCRIPTORS: *Acetones, *Benzenes, Decomposition,
*Photochemical reactions, Activated carbon, Nickel.

The photochemical decomposition of benzene and acetone adsorbed on active nickel and activated carbon was compared with their behavior in gaseous state. The experimental equipment permitted measurement of the increase of pressure due to secondary decomposition products which indicated the results of the experiments, in which light produced by a spark between zinc and aluminum electrodes was permitted to act on the charge, either unfiltered or after elimination of light of certain (Chemistry--Physical, TT, v. 6, no. 7) (over)

61-18195

I. Danilova, V. I.

101800

Office of Technical Services

Berezovskaya, F. I., Varfolomeeva, E. K., and
Stefanovskaya, V. G.

INFLUENCE OF CATALYTIC ADDITIONS ON THE
DECOMPOSITION AND FORMATION OF ORGANIC
PEROXIDES. [1962] 3p. 13 refs.
Order from OTS or SLA \$1.10

61-18194

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1944,
v. 18, p. 521-528

DESCRIPTORS: *Peroxides, *Hydroperoxides, Decom-
position, Hydrocarbons, Oxidation, Catalysis.

The action of catalytic additions on the decomposition
of 5 peroxides was found to depend upon the chemical
nature of these peroxides. The compounds studied
included ethyl, tert. butyl and benzoyl hydroperoxides
and benzaldehyde and acetone peroxides. The additions
comprised antiknockers, knock inducers, antioxidants and
an oxidation catalyst. No regularity or parallelism
(Chemistry--Organic, TT, v. 6, no. 7) (over)

61-18194

I. Berezovskaya, F. I.
II. Varfolomeeva, E. K.
III. Stefanovskaya, V. G.

Office of Technical Services

62-10837

I. Title: Kinetics . . .

JOURNAL OF PHYSICAL CHEMISTRY, 1944, VOL.
18, NO. 9: [TABLE OF CONTENTS AND SELECTED
ABSTRACTS]. [1962] 4p. 9 refs.
Order from OES or SLA \$1.10

62-10837

Abstract trans. of Zhurnal Fizicheskoi Khimii (USSR)
1944, v. 18, no. 9, p. 329-334, #364-379, 383-385,
405-407.

#FA complete trans. is available in French from OES
or SLA \$4.00 in 61-15792, CEA-tr-R1034, 22 Oct 60
[50]p.

DESCRIPTORS: *Physical chemistry, Abstracting,
*Acetylates, *Polymerization, Nitrogen compounds,
*Equations of state, Gases, Adsorption, Charcoal,
Solutions, *High pressure research, *Extraction,
Azo radicals, Phenyl radicals, Naphthalenes, Chemical
reactions, Reaction kinetics, Benzene.
(Chemistry--Physical, IT, v. 8, no. 6) (over)

Order from OES or SLA

BREITMAN, V.M.

R-2429. Kinetics of real chemical processes.
Zhur. Fiz. Khim., 18, p.356-363, 1944, (10p.)

Kazarnovskii, Ya. S. and Levchenko, G. T.
COMPRESSIBILITY OF METHANE AND METHANE-
AMMONIA MIXTURES AT HIGH TEMPERATURES
AND PRESSURES. [1961] 4p. 7 refs.
Order from OTS or SLA \$1.10 61-18226

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1944,
v. 18, p. 380-331.

DESCRIPTORS: *Methanes, *Ammonia, High pressure
research, High temperature research, Equations of
state.

The compressibility of methane under pressures of from
86.6 to 1400 atm was determined at 250 and 300°C with
a limit of error of up to $\pm 0.5\%$. Binary mixtures of
methane and ammonia of four compositions, i.e., con-
taining 31.84, 39.58, 53.85 and 55.72% ammonia, were
determined for pressures ranging from 82 to 1675 atm
and temperatures from 150 to 300°C with a precision of
up to $\pm 1\%$. The data obtained are quite satisfactorily
(Chemistry--Physical, TT. v. 6, no. 7) (over)

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Mechanism of the Oxidation of NO, by M.
S. Farman, 4 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XVIII,
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Kinetics of the NER Dissociation of Ammonia on
Iron Catalysts, by G. P. Korotichuk, I. A. Khrizman,
12 pp UNCLASSIFIED

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1974, pp 309-354.

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Sci-Tech Center
AK RT-1022

Scientific - Chemistry

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THERMODYNAMIC PROPERTIES OF COMPRESSED
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Metana]. [1961] 9p. 16 refs.
Order from OTS or SLA \$1.10 61-18227

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1944,
v. 18 [no. 10] p. 453-465.
Another translation is available from SLA as RT-1021.

DESCRIPTORS: *Methanes, *Thermochemistry, High
pressure research, Equations of state.

The fugacity, heat capacities at constant pressure and
volume, the heat content, entropy, free energy, maxi-
mum work and internal energy were calculated for
methane within the temperature interval of from -70 to
+200°C and pressures of from 10 to 1,000 atm. Mollier
diagrams were constructed for methane. The values
calculated by the author were correlated with calculated
and experimental data reported in the literature.
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pp 537-546.

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Scientific - Physics

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of formation of an anodic film on aluminum. Zhur. Fiz.
Khim., 1959, No. 9, p. 1550-1554. (7p.)

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of the Kinetics of the Intermediate Reaction Products

N. M. Emanuel (Inst of Chem Physics, USSR, Acad Sci)

(Wilson Lam 552)

Zhur Fiz Khim XIX, ~~48-51~~ 48-71 (1945)

The Principle of Ensemble and Aggravation in Catalysis.
I. The Method of Fluctuation Analysis of Active Centers of
Catalysis in the Range of Subcrystalline Structures.

N. I. Kokozev, L. A. Nikolayev, I. A. Zubovich, and Yu. M.
Gol'ofel's (Lab of Catalysis and Gas Electrochem, Moscow
State (Lomonosov) University)

(Wilson Den 553)

Zhur Fiz Khim XIX, 72-82 (1945)

Partial Pressures in Real Gas Mixtures

M. Temkin (Karpov Physical Chem Inst)

(Wilson Jan 645)

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NO. 3: [TABLE OF CONTENTS AND SELECTED
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Order from OIS or SLA \$1.10

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DESCRIPTORS: *Physical chemistry, *Abstracts,
Catalysts, Catalysis, Classification, Hydrocarbons,
Colloids, Electrical conductance, Electrochemistry.

Contents:

Principle of ensemble and aggravation in catalysis. II.
Principle of aggravation and structural classification
of catalysts, by N. I. Kobozev

Physicochemical investigation of emulsions of poly-
merizing hydrocarbons.

I. Conductometric method of sedimentation analysis of
emulsions, by A. I. Yurzhenko.

- I. Title: Principle...
- II. Title: Conductometric...

(Chemistry--Physical,
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A New Type of Chemical Compounds, "Cyanyls", by D. P.
Ormont, 6 pp.

RUSSIAN, no per, Zhur Fiz Khim, Vol XIX, No 3, 1945,
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Scientific - Chemistry

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Ye. Kondratyev, V. Kondratyev

Thermal Decomposition of Hydrogen
Peroxide Vapor

(ACSIL Trans (413)

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Thermodynamic Properties of Compressed Nitrogen-Hydrogen
Mixtures

I. R. Krichevskiy, Ya. S. Kazarnovskiy and G. T. Lev-
chenko (State Nitrogen Inst, Moscow)

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IONIC NATURE OF MELTS AND SOLUBILITY OF
OXIDES AND SULFIDES THEREIN. [1963] 10p
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DESCRIPTORS: •Sulfides, •Oxides, Solubility, Melting,
Ions.

(Chemistry--Physical, T.T. v. 10, no. 12)

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On Absolute Rates of Dissolving, by N. Ya. Buben,
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NLL 5828.4F (11823)

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Exchange of Ions Between Solid and Liquid
Phases. III., by E. N. Gapon, UNCLASSIFIED

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Ingeborg V. Baker. 16 May 63 [9]p. 10 refs.
RSIC-13. AD-404 919
Order from OTS or SLA \$1.10 63-19563

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DESCRIPTORS: Solids, *Ice, *Phenols, *Benzenes,
*Camphors, Iodine, *Evaporation, Vapor pressure,
Test equipment.

Measurements were performed on the accommodation
coefficients for ice, solid phenol, solid benzene and
camphor.

(Physics--Thermodynamics, TT, v. 10, no. 7)

I. Baranov, M. K.
II. RSIC-13
III. Army Missile Command,
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IV. AD-404 919

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Scientific - Chemistry

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Molecular State of Electrolytes in Concentrated
Solutions, by E. Ya. Gorenbein
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1946, pp 547-552.
NLL 5828.4F (11860)

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